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EXAMINER	
SMITH, SHEILA B	

ART UNIT	PAPER NUMBER
2681	

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/540,674	MAJIDI-AHY, REZA	
	Examiner	Art Unit	
	Sheila B. Smith	2681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *40,42 and 44-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *40,42 and 44-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 40,42,44-50, 55,60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson (U.S. Patent Number 5,883,884) in view of Uratani (U.S. Patent Number 5,850,593) and further in view of Bedekar et al. (U.S. Patent Number 6,603,753).

Regarding claims 40, 60, Atkinson discloses essentially all the claimed invention as set fourth in the instant application, further Atkinson discloses wireless digital communication system having hierarchical wireless repeaters with autonomous handoff. In addition Atkinson further discloses a method of controlling communication between a base station controller (1001) and customer premises equipment (1010), comprising steps of: selecting, by said base station controller (1001), one or more access points (1004,1007) between said base station controller (1001) and said customer premises equipment (1010) for sending a message (which reads on column 10 lines 25-30); controlling, by said base station controller (1001), physical parameters and media access control parameters for said access points (which reads on column 4 lines 9-15) ; and sending said message through said access points from said base station controller to said customer premises equipment or from said customer premises equipment to said base station controller (which reads on column 5 lines 22-25). However Atkinson fails to disclose

controlling, by said access points, routing and switching of said message to or from said customer premises equipment.

In the same field of endeavor, Uratani discloses a down-link transmission inter-cell scheduling in CDMA data networks. In addition Uratani discloses by base station controller or access points scheduling for communication between base station controller and access points (which reads on column 4 lines 32-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with autonomous handoff with the use of base station controller or access points scheduling for communication between base station controller and access points, as taught by Uratani for the purpose of avoiding interference between user signals.

Regarding claim 42, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses the step of controlling, by said base station controller, quality of service parameters for communication between said base station controller and said access points (which reads on column 9 lines 5-14).

Regarding claim 44, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses the step of controlling, by said access points, quality of service parameters for communication between said access points and said customer premises equipment (which reads on column 9 lines 5-14).

Regarding claim 46, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses access points include one or more repeaters (which reads on 10 lines 11-15).

Regarding claim 47, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses access points include one or more routers or switching devices (which reads on column 9 lines 5-14).

Regarding claim 48, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses access points includes one or more reflectors, repeaters, or routers or switching devices (which reads on 10 lines 11-15).

Regarding claim 49, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses step of sending is at least partially wireless (which reads on 1 lines 2-4 and column 10 lines 17-18).

Regarding claim 50, Atkinson discloses essentially all the claimed invention as set fourth in the instant application, further Atkinson discloses wireless digital communication system having hierarchical wireless repeaters with autonomous handoff. In addition Atkinson further discloses a base station controller operable of controlling communication between a base station controller and customer premises equipment, comprising: wireless communication equipment including at least an antenna (204) and transmitter (201) and receiver (202); and a processor (203) that controls the wireless communication equipment programmed to perform instruction (which reads on column 5 lines 45-67) comprising steps of (a) selecting one or more access points between said base station controller and said customer premise equipment for

sending a message (which reads on column 10 lines 25-30), (b) controlling physical parameters and media access control parameters for said access points (which reads on column 4 lines 9-15), and (c) sending said message through said access points to said customer premises equipment or receiving said message from said customer premises equipment through said access points (which reads on column 5 lines 22-25), However Atkinson fails to disclose controlling, by said access points, routing and switching of said message to or from said customer premises equipment.

In the same field of endeavor, Uratani discloses a down-link transmission inter-cell scheduling in CDMA data networks. In addition Uratani discloses by base station controller or access points scheduling for communication between base station controller and access points (which reads on column 4 lines 32-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with autonomous handoff with the use of base station controller or access points scheduling for communication between base station controller and access points, as taught by Uratani for the purpose of avoiding interference between user signals.

Regarding claim 55, Atkinson discloses essentially all the claimed invention as set fourth in the instant application, further Atkinson discloses wireless digital communication system having hierarchical wireless repeaters with autonomous handoff. In addition Atkinson further discloses a memory (which reads on a microprocessor 703) storing information including instruments (which reads on column 8 lines 59-67), the instructions executable by a processor of

a base station controller to control communication between a base station controller and customer premise equipment, wherein the instructions comprise items of selecting one or more access point between said base station controller and said customer premises equipment for said a message (which reads on column 10 lines 25-30); controlling physical parameters and media access control parameters for said access points (which reads on column 4 lines 9-16); and sending said message through said access points to said customer premises equipment or receiving said message from said customers premises equipment through said access points (which reads on column 5 lines 22-26). However Atkinson fails to disclose controlling, by said access points, routing and switching of said message to or from said customer premises equipment.

In the same field of endeavor, Uratani discloses a down-link transmission inter-cell scheduling in CDMA data networks. In addition Uratani discloses by base station controller or access points scheduling for communication between base station controller and access points (which reads on column 4 lines 32-40).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with autonomous handoff with the use of base station controller or access points scheduling for communication between base station controller and access points, as taught by Uratani for the purpose of avoiding interference between user signals.

2. Claims 51-54,56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkinson in view of Uratani and further in view of Bedekar et al. (U.S. Patent Number 6,603,753).

Regarding claim 51, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 50) additionally Atkinson discloses instructions further comprising step of controlling communication between said base station controller and said access points. However Atkinson in view of Uratani fails to specifically disclose scheduling for communication between said access points

In the same field of endeavor, Bedekar et al. discloses a down-link transmission inter-cell scheduling in CDMA Data networks. In addition Bedekar et al. discloses scheduling for communication between said access points (which reads on column 8 lines 22-43, scheduling of time intervals of all base stations).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with scheduling for communication between said access points, as taught by Bedekar et al. for the purpose of reserving channel traffic capacity.

Regarding claim 52, Atkinson in view of Uratani and further in view of Bedekar et al. discloses everything claimed, as applied above (see claim 50) additionally Atkinson discloses said instructions further comprise the step of controlling quality of service parameters for

communication between said base station controller and said access point (which reads on column 4 lines 9-15).

Regarding claim 53, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 50) additionally Atkinson discloses instructions permit said access points to control communication between said access points and said customer premises equipment. However Atkinson in view of Uratani fails to specifically disclose scheduling for communication between said access points

In the same field of endeavor, Bedekar et al. discloses a down-link transmission inter-cell scheduling in CDMA Data networks. In addition Bedekar et al. discloses scheduling for communication between said access points (which reads on column 8 lines 22-43, scheduling of time intervals of all base stations).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with scheduling for communication between said access points, as taught by Bedekar et al. for the purpose of reserving channel traffic capacity.

Regarding claims 54 and 59, Atkinson in view of Uratani and further in view of Bedekar et al. discloses everything claimed, as applied above (see claim 40) additionally Atkinson discloses said instructions permit said access points to control quality of service parameters for communication between said access points and said customer premises equipment (which reads on column 4 lines 9-15).

Regarding claim 56, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 55) additionally Atkinson discloses instructions further comprise the step of controlling communication between said base station controller and said access points. However Atkinson in view of Uratani fails to specifically disclose scheduling for communication between said access points

In the same field of endeavor, Bedekar et al. discloses a down-link transmission inter-cell scheduling in CDMA Data networks. In addition Bedekar et al. discloses scheduling for communication between said access points (which reads on column 8 lines 22-43, scheduling of time intervals of all base stations).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with scheduling for communication between said access points, as taught by Bedekar et al. for the purpose of reserving channel traffic capacity.

Regarding claim 57, Atkinson in view of Uratani and further in view of Bedekar et al. discloses everything claimed, as applied above (see claim 50) additionally Atkinson discloses the step of control quality of service parameters for communication between said base station controls and said access points (which reads on column 4 lines 9-15).

Regarding claim 58, Atkinson in view of Uratani discloses everything claimed, as applied above (see claim 55) additionally Atkinson discloses instructions permit said access points to control communication between said access point and said customer premises

equipment. However Atkinson fails to specifically disclose scheduling for communication between said access points

In the same field of endeavor, Bedekar et al. discloses a down-link transmission inter-cell scheduling in CDMA Data networks. In addition Bedekar et al. discloses scheduling for communication between said access points (which reads on column 8 lines 22-43, scheduling of time intervals of all base stations).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Atkinson et al. by modifying wireless digital communication system having hierarchical wireless repeaters with scheduling for communication between said access points, as taught by Bedekar et al. for the purpose of reserving channel traffic capacity.

Response to Arguments

3. Applicant's arguments with respect to claims 40,42,44-60 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Smith
February 5, 2006

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER